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### Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

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AUG 22 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

| In the Matter of              | )                      | OFFIC |
|-------------------------------|------------------------|-------|
|                               | )                      |       |
| Advanced Television Systems   | ) MM Docket No. 87-268 |       |
| and Their Impact upon the     | )                      |       |
| Existing Television Broadcast | )                      |       |
| Service                       | }                      |       |

To: The Commission

#### SUPPLEMENT TO PETITION FOR RECONSIDERATION

Gilmore Broadcasting Corporation ("GBC"), licensee of television broadcast station WEHT(TV), Evansville, Indiana, hereby supplements its June 13, 1997 Petition seeking reconsideration of the Commission's Sixth Report and Order ("Sixth R&O") in the above-referenced proceeding. In its Petition, GBC noted, inter alia, that the Commission's Table of Digital Television Allocations placed two Evansville stations on adjacent, non-core channels. GBC now supplements its Petition to develop an alternative, consistent with Commission Rules and Policies but which would reduce the possibility of interference

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and permit an easier transition to digital service, to the ultimate benefit of the viewing public.

#### I. Background

WEHT(TV) currently operates on NTSC Channel 25 and is the ABC affiliate in the Evansville market. In its Sixth R&O, the Commission awarded WEHT(TV) DTV Channel 59. As GBC pointed out in its Petition, this action was flawed in at least two respects. First, it gave WEHT(TV) a DTV channel that would be "non-core" under either scenario currently proposed for the formulation of the final DTV Table. Second, it placed on first adjacent channels two television stations licensed to the same community inasmuch as WFIE-TV, Evansville was allocated DTV Channel 58.

GBC notes that WFIE-TV's licensee has requested that its DTV allocation be changed to Channel 4.2

GBC stated that it would incur additional expenses were it forced to relocate its service yet again to another channel, this one within the core. The expenses, as well as viewer confusion,

<sup>&</sup>lt;sup>1</sup> On July 2, 1997, the Commission established August 22, 1997 as the deadline for supplements to Petitions for Reconsideration, following release of Office of Engineering and Technology Bulletin No. 69. See Order, DA 97-1377, July 2, 1997, at  $\P$  7.

<sup>&</sup>lt;sup>2</sup> <u>See</u> Opposition to GBC's Petition for Reconsideration, filed July 18, 1997 by Cosmos Broadcasting Corporation.

would be eliminated were the Commission to specify a DTV core channel at the outset. <u>See</u> Petition at 3.

GBC also noted that there remain unanswered questions about DTV operation on first adjacent channels, even where the transmitters are closely spaced. Although the Commission has characterized transmitters separated by 4.9 km -- such as WEHT(TV) and WFIE-TV -- as effectively co-located, there is a possibility that intermodulation products resulting from the non-linearity of RF amplifiers could produce interference. See id. at Engineering Statement, page 4.

#### II. Discussion

As indicated in the attached Engineering Statement of Cohen, Dippell and Everist, P.C., there is evidence that first adjacent channel interference from out-of-band DTV signals may be larger than anticipated. Moreover, because the technology is at an early stage of development, it is anticipated that satisfactory first adjacent DTV-to-DTV ratios will be difficult to achieve.

Accordingly, GBC proposes instead that its DTV allocation be changed to Channel 26. In addition to obviating the uncertainty, confusion, and expense inherent in temporary use of a non-core channel, the modification to Channel 26 also should reduce the potential for interference. While superficially it may seem that

GBC only would be trading one type of first adjacent interference for another, there is an important distinction between the DTV 58 and DTV 59 proposed in the current Table and the NTSC 25 and DTV 26 that GBC now advances. In the latter case, the two facilities will be owned by the same licensee, the antennas will be on the same tower, and the transmitters will be in the same building. Thus, the ease of identifying and correcting interference problems would be much greater than would be the case if adjustments had to be coordinated between two separate engineering staffs operating facilities approximately 3 miles apart.

GBC recognizes, that, as with much of DTV technology, much remains to be learned. It may be that co-located adjacent channel operation of NTSC Channel 25 and DTV Channel 26 will have its own problems. GBC believes, however, that, particularly because of its greater ability to correct such problems when both channels are under its control, the risks are less formidable than those presented by the Commission's current Table. GBC understands that it may be forced to seek another channel, perhaps Channel 59, if its current assumptions prove unworkable. The necessity for that step, however, cannot be determined until there is developed a body of experience with DTV technology.

Viewed with today's perspective, Channel 26 is the more desirable alternative.

#### III. Conclusion

For the foregoing reasons, GBC respectfully requests that the DTV allotment for WEHT(TV), Evansville, Indiana, be changed from Channel 59 to Channel 26.

Respectfully submitted,

GILMORE BROADCASTING CORPORATION

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Jerry V. Haines

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Its Attorneys

Dated: August 22, 1997

# ENGINEERING STATEMENT ON BEHALF OF WEHT(TV), CHANNEL 25, EVANSVILLE, INDIANA RE PROPOSED CHANGE OF DTV ALLOTMENT IN MM DOCKET NO. 87-268

**AUGUST 1997** 

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

City of Washington

| District of Columbia )  |   |
|---|---|
| Donald G. Everist, being duly sworn   | upon his oath, deposes and states that:   |
| He is a graduate electrical engineer, District of Columbia, and is President of Co Engineers, Radio - Television, with office Washington, D.C. 20005; | · • • •   |
| That his qualifications are a matter Commission;  | of record in the Federal Communications   |
| That the attached engineering rep supervision and direction and   | ort was prepared by him or under his  |
| That the facts stated herein are true as are stated to be on information and belie to be true.  | of his own knowledge, except such facts ef, and as to such facts he believes them                               |
|   | Donald G. Everist District of Columbia Professional Engineer Registration No. 5714                              |
| Subscribed and sworn to before me this  | day of, 1997.   |
|   | Notary Public  My Commission Expires: Sult Lattices   |
|   | My Commission Expires: SUF : KILGORI NOTARY PUBLIC DISTRICT OF COLUMBIA My Commission Expires December 14, 2001 |

This engineering statement has been prepared on behalf of Gilmore Broadcasting Corporation, licensee of television broadcast station WEHT, Channel 25, Evansville, Indiana. This statement supplements its Petition for Reconsideration entitled, "Engineering Statement in Support of Petition for Reconsideration, MM Docket 87-268 on Behalf of Gilmore Broadcasting Corporation, June 1997", in support of its request to change the digital television (DTV) allotment assigned to WEHT in the Sixth Report & Order in MM Docket No. 87-268 entitled, "In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service". Specifically, WEHT(TV) requests (1) that it be permitted to change its DTV allotment from Channel 59 to Channel 26 or (2) if it is found that WEHT(TV) NTSC/DTV operation from the same tower is not technically feasible, then WEHT(TV) will request to change to another channel such as Channel 59.

#### Proposed Change in DTV Allotment

The requested change in DTV allotment for WEHT(TV) channel from Channel 59 to Channel 26 will resolve any potential first-adjacent channel incompatibility problems anticipated between WEHT(TV)'s DTV Channel 59 and WFIE's DTV Channel 58 since the two sites are located 4.9 km apart.

WEHT(TV) is aware of transmitter test data<sup>1</sup> in 1996 which indicated a large increase in first-adjacent channel interference from out-of-band DTV signals. Further

<sup>&</sup>lt;sup>1</sup>"Transmitter Considerations for ATV", Harris Corp., Broadcast Division, Robert J. Plonka, November 22, 1996.

WEHT(TV) believes that it is not unreasonable to assume that first-adjacent DTV to DTV ratios in the real-world situation will be difficult to achieve.

The attached Table I is an allocation study depicting the distances from the proposed Channel 26 DTV operation of WEHT(TV) to other NTSC stations. Table II is an allocation study depicting distances from the FCC allotted Channel 59 DTV operation of WEHT(TV) to other NTSC stations. Table III lists the pertinent co-channel and first-adjacent channel DTV allotments surrounding WEHT(TV) DTV options (Channels 26 and 59).

WEHT believes that Channel 26 will provide it with virtually full replication of its current Channel 25 service area as proposed by the assigned Channel 59 DTV operation. In addition, the potential first-adjacent DTV Channel 59/Channel 58 interference situation within Evansville will be resolved.

### TABLE I PROPOSED CHANNEL 26 DTV TO NTSC ALLOCATION STUDY AUGUST 1997

|             |     |                    |                   | Distance            |                       |  |
|-------------|-----|--------------------|-------------------|---------------------|-----------------------|--|
| <u>Chan</u> | nel | Call               | <u>City/State</u> | <u>Actual</u><br>km | <u>Required</u><br>km |  |
| N           | 26  | WEHT-DTV           | Evansville, IN    |                     |                       |  |
| N-7         | 19  | WLCN               | Madisonville, IN  | 50.4*               | <24.1,>80.5           |  |
| N-4         | 22  | WVUT               | Vincennes, IN     | 87.6                | <24.1,>80.5           |  |
| N-3         | 23  | None within 120 km |                   |                     | <24.1,>80.5           |  |
| N-2         | 24  | None within 120 km |                   |                     | <24.1,>80.5           |  |
| N-1         | 25  | WEHT               | Evansville, IN    | 0                   | <9.7,>88.5            |  |
| N           | 26  | None wi            | thin 120 km       |                     | 244.6                 |  |
| N + 1       | 27  | WTCT               | Marion, IL        | 132.8               | <9.7,>88.5            |  |
| N + 2       | 28  | None wi            | thin 120 km       |                     | <24.1,>80.5           |  |
| N+3         | 29  | None wi            | thin 120 km       |                     | <24.1,>80.5           |  |
| N+4         | 30  | None wi            | thin 120 km       |                     | <24.1,>80.5           |  |
| N + 7       | 33  | None wi            | thin 120 km       |                     | <24.1,>80.5           |  |
| N+8         | 34  | None wi            | thin 120 km       |                     | <24.1,>80.5           |  |

<sup>\*</sup>Reduced-spacing. WLCN has an ERP of 2.69 MW and HAAT of 241 meters which is less than full facilities.

### TABLE II DTV TO NTSC FCC CHANNEL 59 ALLOCATION STUDY AUGUST 1997

|             |            |                    |                     | Distance            |                       |  |
|-------------|------------|--------------------|---------------------|---------------------|-----------------------|--|
| <u>Chan</u> | <u>nel</u> | Call               | <u>City/State</u>   | <u>Actual</u><br>km | <u>Required</u><br>km |  |
| N           | 59         | WEHT-DTV           | Evansville, IN      |                     |                       |  |
| N-15        | 44         | WEVV               | Evansville, IN      | 3.3                 | <24.1,>80.5           |  |
| N-14        | 45         | None within 120 km |                     |                     | <24.1,>80.5           |  |
| N-8         | 51         | APP                | Hopkinsville,<br>KY | 104.5               | <24.1,>80.5           |  |
| N-7         | 52         | None wi            | thin 120 km         |                     | <24.1,>80.5           |  |
| N-4         | 55         | None wi            | thin 120 km         |                     | <24.1,>80.5           |  |
| N-3         | 56         | None wi            | thin 120 km         |                     | < 24.1, > 80.5        |  |
| N-2         | 57         | None wi            | thin 120 km         |                     | <24.1,>80.5           |  |
| N-1         | 58         | None wi            | thin 120 km         | ~-                  | <9.7,>88.5            |  |
| N           | 59         | WXIN               | Indianapolis, In    | 254                 | 217.3                 |  |
| N + 1       | 60         | None wi            | thin 120 km         | ~-                  | <9.7,>88.5            |  |
| N + 2       | 61         | None wi            | thin 120 km         |                     | <24.1,>80.5           |  |
| N+3         | 62         | None wi            | thin 120 km         |                     | <24.1,>80.5           |  |
| N+4         | 63         | None wi            | thin 120 km         |                     | <24.1,>80.5           |  |
| N+7         | 66         | None wi            | thin 120 km         |                     | <24.1,>80.5           |  |
| N + 8       | 67         | None wi            | thin 120 km         |                     | < 24.1, > 80.5        |  |

## TABLE III DTV TO DTV ALLOCATION STUDIES AUGUST 1997

|              |      |                    |                   | Distance            |                       |
|--------------|------|--------------------|-------------------|---------------------|-----------------------|
| Char         | inel | Call               | <u>City/State</u> | <u>Actual</u><br>km | <u>Required</u><br>km |
| N            | 26   | WEHT-DTV           | Evansville, IN    |                     |                       |
| N-1          | 25   | None within 120 km |                   |                     | <32.2,>88.5           |
| N            | 26   | WLKY               | Louisville, KY    | 162                 | 217.3                 |
| N + 1        | 22   | None within 120 km |                   |                     | <32.2,>88.5           |
|              |      |                    |                   | Dis                 | stance                |
| Channel Call |      | <u>City/State</u>  | Actual            | Required            |                       |
|              |      |                    |                   | km                  | km                    |
| N            | 59   | WEHT-DTV           | Evansville, IN    |                     |                       |
| N-1          | 58   | WFIE-DTV           | Evansville, IN    | 4.9                 | <32.2,>88.5           |
| N            | 59   | WKYT-DTV           | Lexington, KY     | 278.8               | 196.3                 |
| N + 1        | 60   | None wi            | thin 280 km       |                     |                       |

#### Certificate of Service

I, Lorraine Handel, hereby certify that a copy of the foregoing Supplement to Petition for Reconsideration was delivered via first class, postage prepaid mail to the following this 22<sup>nd</sup> day of August, 1997.

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